Author Index to Volume 35

Andrews, Peter W., 321
Armstrong, John, 129
ar-Rushdi, Abbas, 105
Avila, Jesús, 83

Bates, Susan, 1
Baulieu, Etienne-Emile, 161
Biswas, Chitra, 247
Bolen, Joseph B., 113
Brew, Keith, 185
Brokaw, Charles J., 175
Bronzert, Diane, 1

Cabot, Myles C., 231
Capony, Francoise, 17
Carraway, Coralie A. Carothers, 185
Carraway, Kermit L., 185
Carter, Lee M., 333
Cavaillès, Vincent, 17
Chambon, Monique, 17
Charron, Jean, 293
Cheng, Nancy, 217
Colman, Alan, 129
Cook, Paul W., 271
Creek, Kim E., 137
Croce, Carlo M., 105

Dabbous, Mustafa Kh., 333
DeSeau, Virginia, 113
Dey, Chinmoy S., 259
Dickson, Robert B., 1
Dillon, Susan B., 345
Drouin, Jacques, 293
Durrin, Linda K., 153

Firestone, Gary L., 271
Fisher, Joan M., 153

Freiss, Gilles, 17

Gagner, Jean-Pierre, 293
Galeazzi, Donna R., 153
Garcia, Marcel, 17
Gasic, Gabriel J., 31
Gelmann, Edward P., 1
Grubb, Jeffrey H., 137

Haffar, Omar K., 271
Ham, Jonathan, 285
Hamner, Steve, 31
Haney, Lena, 333
Herlyn, Meenhard, 315
Huff, Karen, 1
Huggett, Anthony C., 305

Jeannotte, Lucie, 293
Jiricny, Josef, 69
John, Nancy J., 271
Jones, Phillip B.C., 153
Jost, Jean-Pierre, 69

Kasid, Attan, 1
Knabbe, Cornelius, 1
Koprowski, Hilary, 315
Krutzsch, Henry C., 305

Lippman, Marc E., 1
Liu, Yuecheung, 185

Magnuson, James A., 31
Majumder, Gopal C., 259
McCrae, Malcolm, 129

Meeker, Timothy C., 105
Moncharmont, Bruno, 69
Morisset, Muriel, 17
Murray, John J., 345

Nagarajan, Lalitha, 105
Needham, Maurice, 285
Nemer, Mona, 293
Nolan, Catherine M., 137
Nugent, Matthew A., 247

Parker, Malcolm G., 285
Patejunas, Gerald, 205
Paul, A.K., 333
Plante, Richard K., 293
Pratt, William B., 51

Reger, James, 333
Robertson, Nancy P., 31
Rochefort, Henri, 17
Rodeck, Ulrich, 315
Rosen, Neal, 1, 113

Saluz, Hanspeter, 69
Schnitzer-Polokoff, Robin, 93
Sinensky, Michael, 93
Sly, William S., 137
Snyderman, Ralph, 345
Stanford, David R., 31
Starkey, Jean R., 31

Thorgeirsson, Snorri S., 305
Traut, Thomas W., 217

Uhing, Ronald J., 345

Vignon, Francoise, 17

Wandosell, Francisco, 83
Webb, Paul, 285
Welsh, Clement J., 231
White, Roger, 285
Whitlock, James P., Jr., 153
Wrange, Örjan, 293

Young, Anthony P., 205

Subject Index to Volume 35

Adenylate cyclase, 175
Androgen response elements, 285
Antibody inactivation, 137
Antiestrogen, 161
Antigens, 321
Antiglucocorticosteroid, 161
Antihormones, 161
Ascites tumor cell microvilli, 185
Avian vitellogenin gene, 69

Basement membrane, 31
Binds preferentially, 69
Breast cancer, 1, 17
B-16 melanoma cells, 247

Calcium, 185
Calcium and cAMP-dependent phosphorylation, 175
Calmodulin, 175
Calpactin, 185
cAMP-dependent protein kinase, 175
Cancer, 315
Cathepsin-B, -D, -L, 17
Cell-cell interactions, 247, 333
Cell lines, 321
Cell proliferation, 17
Cell surface, 321
Cell surface glycoproteins, 271
Cell-surface protein, 259
Cell type, 217
Cellular complexity, 93
cGMP, 175
Characterization of HPI, 305
Chemotaxis, 175
Chick retinal glutamine synthetase mRNA, 205
CHO-KI cells, 93
Cholesterol biosynthesis, 93
Cloning, 105
Collagenase stimulation, 247
Collagenolytic activity, 333
Collagen type IV, 31
Coronavirus E1, 129
Cyclic AMP-receptors, 259
Cytochrome P_1-450, 153

Deficient mutants, 217
Diacylglycerol metabolites, 231
DNA-binding protein, 69
DNA-binding site, 293
DNA-binding state, 51
Drosophila melanogaster, 83
Dyad-symmetry structure, 69

Ecto-cyclic AMP-receptor, 259
Embryonal carcinoma, 321
Enzyme expression of uridine kinase, 217
Estradiol-dependent trans-acting factor, 69
Estrogen, 1
Estrogen-induced proteases, 17
Expression, 129
Extracellular matrix degradation, 31

Fibroblast receptors, 137
Fibroblast response, 333

Gene regulation, 69, 153
Genetic evidence, 271
Glucocorticoid and progesterone receptors, 51
Glucocorticoid hormone induction (of glutamine synthetase) during development, 205

Glucocorticoid hormone induction (of glutamine synthetase) in retina, 205
Glucocorticoid-inducible cellular components, 271
Glucocorticoid-inhibitory element, 293
Glucocorticoid receptor deficient variant, 271
Glycolipids, 321
Glycoprotein trafficking variant, 271
Glycosaminoglycan degradation, 31
Goat spermatozoa, 259
G proteins, 345
Growth factor beta, 305
Growth factor receptors, 315
Growth factors, 1
Growth inhibition, 305
Growth regulation, 1, 315
Growth stimulation, 217
Guanylate cyclase, 175

Heat shock protein, 51
Heat-shock protein MW 90,000 (hsp 90), 161
Hematolymphoid genes, 105
Hepatic proliferation inhibitor (HPI), 305
Heterogeneity of fibroblast response, 333
Heterokaryons, 271
HL-60 cells, 231
HMG CoA synthase, 93
Hormone regulatory elements (HRE), 161
Hormone response elements, 285
Host-tumor cell-cell interactions, 333
Human breast carcinoma, 1
Human colon carcinoma, 113
Human PIM-1 gene, 105
Human polymorphonuclear leukocytes, 345
Human teratocarcinoma, 321
Human tumors, 315

IGF-I, 1
Induction, 217
Induction of glutamine synthetase, 205
Induction of mRNA (by glucocorticoid hormones), 205
Inositol phosphates, 345
Intracellular pH, 175
Isoenzymes, 93

Laminin, 31
Leukocyte activation, 345
Liposome-binding protein, 185
Liposomes, 185
Liver epithelial cells, 305
Lysosomal enzyme targeting, 137
Lysosomal proteases, 17

Mast cell products, 333
MCF7 cells, 17
Membrane modification, 231
Membrane proteins, 129
Metabolism of diacylglycerol mediators, 231
Metastatic tumor cells, 31
Metastatic tumors, 333
Metastasis, 31
Microfilaments, 185
Microtubule-associated proteins, 83
Microtubule polymerization, 83
Microvilli, 185
Monoclonal antibodies, 315
Monomeric calpactin, 185
Mouse mammary tumor virus, 271, 285
Mutagenesis, 217

Negative regulation of transcription, 293
Normal human colon mucosal cells, 113

Oncogene, 105
1-oleyl-2-acetyl-*sn*-glycerol, 231

P-blood group, 321
PDGF, 1
Phosphatase activity, 113
Phospholipase C, 345
Phosphomannosyl receptor, 137
Phosphorylation, 51
Phosphotyrosyl phosphatase, 113
PMNs, 345
Polymorphonuclear leukocytes, 345
$pp60^{c\text{-}src}$, 113
Primary hepatocytes, 305
Primary hormone indication, 205
Pro-opiomelanocortin, 293
Protein kinase, 105
Protein purification, 93
Purified proteases, 31

Rat hepatoma cells, 271
Rat liver, 93
Rat prostate C3 gene, 285
Receptor, 153
Receptor antisteroids, 161
Receptor inactivation, 137
Responsiveness during development, 205
Rotavirus VP10, 129

RU 486,161

Sea urchin spermatozoa, 175
Sn-1,2-diacylglycerols and phorbol diesters, 231
Spermatozoa, 175
Sperm flagella, 175
Sperm motility, 259
Steroid hormone antagonists, 161
Steroid receptors, 51
Steroid-regulated trafficking, 271
Subunit size of uridine kinase, 217
Synthetic RNA, 129

Tamoxifen, 161
Tau factor, 83
Testosterone, 285
TGF, 1
Third intron, 69
35,000-dalton microfilament, 185
Tissue-specific induction by glucocorticoid hormones, 205
Transformation, 51
2,3,7,8-tetrachlorodibenzo-p-dioxin, 153
Tubulin binding proteins, 83
Tumor invasion, 17, 247, 333
12-O-tetradecanolylphorbol-13-acetate, 231
Tyrosine kinase, 113

Uridine kinase, 217

Journal of Cellular Biochemistry

Volume 35, 1987

EDITORS

In the United States
C. FRED FOX
Molecular Biology Institute
University of California, Los Angeles

In Europe
MAX M. BURGER
Friedrich Miescher Institute
Basel, Switzerland

ALAN R. LISS, INC.

© 1987 Alan R. Liss, Inc.
41 East 11th Street
New York, NY 10003

Contents

Volume 35 • Number 1 **September 1987**

ARTICLES

Comparison of Basement Membrane Matrix Degradation by Purified Proteases and by Metastatic Tumor Cells, **Jean R. Starkey, David R. Stanford, James A. Magnuson, Steve Hamner, Nancy P. Robertson, and Gabriel J. Gasic** 31

Estradiol-Dependent Trans-Acting Factor Binds Preferentially to a Dyad-Symmetry Structure Within the Third Intron of the Avian Vitellogenin Gene, **Jean-Pierre Jost, Hanspeter Saluz, Josef Jiricny, and Bruno Moncharmont** 69

INVITED REVIEWS

Growth Regulation of Human Breast Carcinoma Occurs Through Regulated Growth Factor Secretion, **Marc E. Lippman, Robert B. Dickson, Edward P. Gelmann, Neal Rosen, Cornelius Knabbe, Susan Bates, Diane Bronzert, Karen Huff, and Attan Kasid** . . 1

Estrogen-Induced Lysosomal Proteases Secreted by Breast Cancer Cells: A Role in Carcinogenesis? **Henri Rochefort, Françoise Capony, Marcel Garcia, Vincent Cavaillès, Gilles Freiss, Monique Chambon, Muriel Morisset, and Françoise Vignon** 17

Transformation of Glucocorticoid and Progesterone Receptors to the DNA-Binding State, **William B. Pratt** 51

Volume 35 • Number 2 **October 1987**

ARTICLES

Microtubule-Associated Proteins Present in Different Developmental Stages of *Drosophila melanogaster*, **Francisco Wandosell and Jesús Avila** 83

Characterization of HMG CoA Synthase Activity of Rat Liver and CHO-K1 Cells, **Robin Schnitzer-Polokoff and Michael Sinensky** 93

Cloning and Characterization of the Human PIM-1 Gene: A Putative Oncogene Related to the Protein Kinases, **Timothy C. Meeker, Lalitha Nagarajan, Abbas ar-Rushdi, and Carlo M. Croce** 105

Analysis of pp60$^{c\text{-}src}$ Tyrosine Kinase Activity and Phosphotyrosyl Phosphatase Activity in Human Colon Carcinoma and Normal Human Colon Mucosal Cells, **Virginia DeSeau, Neal Rosen, and Joseph B. Bolen** 113

Expression of Coronavirus E1 and Rotavirus VP10 Membrane Proteins From Synthetic RNA, **John Armstrong, Malcolm McCrae, and Alan Colman** 129

Antibody to the Phosphomannosyl Receptor Inhibits Recycling of Receptor in Fibroblasts, **Catherine M. Nolan, Kim E. Creek, Jeffrey H. Grubb, and William S. Sly** 137

INVITED REVIEWS

2,3,7,8,-Tetrachlorodibenzo-P-Dioxin Receptors Regulate Transcription of the Cytochrome P_1-450 Gene, **Linda K. Durrin, Phillip B.C. Jones, Joan M. Fisher, Donna R. Galeazzi, and James P. Whitlock, Jr.** 153

Steroid Hormone Antagonists at the Receptor Level: A Role for the Heat-Shock Protein MW 90,000 (hsp 90), **Etienne-Emile Baulieu** 161

Volume 35 • Number 3 **November 1987**

ARTICLES

Isolation of a Calcium-Sensitive, 35,000-Dalton Microfilament- and Liposome-Binding Protein From Ascites Tumor Cell Microvilli: Identification as Monomeric Calpactin, **Yuecheung Liu, Keith Brew, Kermit L. Carraway, and Coralie A. Carothers Carraway** 185

Developmentally Regulated Primary Glucocorticoid Hormone Induction of Chick Retinal Glutamine Synthetase mRNA, **Gerald Patejunas and Anthony P. Young** 205

Uridine Kinase: Altered Subunit Size or Enzyme Expression as a Function of Cell Type, Growth Stimulation, or Mutagenesis, **Nancy Cheng and Thomas W. Traut** 217

sn-1,2-Diacylglycerols and Phorbol Diesters: Uptake, Metabolism, and Subsequent Assimilation of the Diacylglycerol Metabolites Into Complex Lipids of Cultured Cells, **Clement J. Welsh and Myles C. Cabot** 231

Membrane Association of Collagenase Stimulatory Factors From B-16 Melanoma Cells, **Chitra Biswas and Matthew A. Nugent** 247

Ecto-Cyclic AMP-Receptor in Goat Epididymal Intact Spermatozoa and Its Change in Activity During Forward Motility, **Chinmoy S. Dey and Gopal C. Majumder** 259

INVITED REVIEW

Regulation of Sperm Flagellar Motility by Calcium and cAMP-Dependent Phosphorylation, **Charles J. Brokaw** 175

Volume 35 • Number 4 December 1987

ARTICLES

Genetic Evidence That the Steroid-Regulated Trafficking of Cell Surface Glycoproteins in Rat Hepatoma Cells Is Mediated by Glucocorticoid-Inducible Cellular Components, **Gary L. Firestone, Nancy J. John, Omar K. Haffar, and Paul W. Cook** 271

Identification of Androgen Response Elements in Mouse Mammary Tumour Virus and the Rat Prostate C3 Gene, **Malcolm G. Parker, Paul Webb, Maurice Needham, Roger White, and Jonathan Ham** 285

Characterization of a Hepatic Proliferation Inhibitor (HPI): Effect of HPI on the Growth of Normal Liver Cells—Comparison With Transforming Growth Factor Beta, **Anthony C. Huggett, Henry C. Krutzsch, and Snorri S. Thorgeirsson** 305

Interactions Between Growth Factor Receptors and Corresponding Monoclonal Antibodies in Human Tumors, **Ulrich Rodeck, Meenhard Herlyn, and Hilary Koprowski** 315

Heterogeneity of Fibroblast Response in Host-Tumor Cell-Cell Interactions in Metastatic Tumors, **Mustafa Kh. Dabbous, Lena Haney, Lee M. Carter, A.K. Paul, and James Reger** 333

INVITED REVIEWS

Pro-Opiomelanocortin Gene: A Model for Negative Regulation of Transcription by Glucocorticoids, **Jacques Drouin, Jean Charron, Jean-Pierre Gagner, Lucie Jeannotte, Mona Nemer, Richard K. Plante, and Örjan Wrange** 293

Human Teratocarcinoma Stem Cells: Glycolipid Antigen Expression and Modulation During Differentiation, **Peter W. Andrews** 321

Regulation of Inositol Phospholipid and Inositol Phosphate Metabolism in Chemoattractant-Activated Human Polymorphonuclear Leukocytes, **Susan B. Dillon, John J. Murray, Ronald J. Uhing, and Ralph Snyderman** 345

ABSTRACTS
PROTEIN RECOGNITION OF IMMOBILIZED LIGANDS
DECEMBER 2–7, 1987

Contents 361

Abstracts 362

Author-Abstract Index 373

Author Index to Volume 35 375

Subject Index to Volume 35 377